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## The Effects of Electronic Human Resource Management on Organisational Stability and Growth

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### Abstract

*Although the connection between firm growth and labour is well documented in economics literature, only recently the link between electronic human resources (HR) and firm growth has attracted the interest of researchers. So in IT based today economy the need for e-HRM has become imperative to meet the HR challenges of 21st century. The paper view e-HRM as an umbrella term covering the integration of HRM and IT, aimed at creating value for targeted employees and managers. The study evaluates the effects of electronic human resource management practices on organizational stability and growth. The study provides insight to management to use these practices as strategic tool for superior performance. The paper shows that as the latest advanced technologies offer the potential to streamline many organizational functions, so is case with human resources. It suggest that organizations should realize the impact of this new change on employees, managers, and human resource staff and understand its dimensions in order to manage the effects with a corporate strategy that is open to change. The paper concludes that Electronic Human Resource Management is an advance business solution which provides a complete on-line support in the management of all processes, activities, data and information required to manage human resources in a modern organisation.*

### Introduction

Electronic Human Resource Management (e-HRM) is a fast developing phenomenon in the field of human resource management. The development of Information and Communication Technologies (ICTs) has radically changed our social and economic lives, and has had a profound effect on the way organizations are managed. As a result, human resource functions, have been forced to re-examine their own roles in the light of a dramatic increase of organizational demands on them (Gloet and Berrell, 2003). The human resource management function has changed dramatically over time evolving. If human resource technology is to be considered successful, it must change the work performed by the human resources personnel by dramatically improving their level of service, allowing more time for work of higher value and reducing their costs (Walker, 2001). Therefore, human resource management departments using ICTs is becoming an increasingly important phenomenon commonly referred to as Electronic Human Resources Management (Yusoff; Ramayah and Ibrahim, 2010). In recent years, Information Technology and Communication (ICT) have incorporated several management activities; commerce, marketing, logistics, and human resource management as well (Strohmeier, 2007). Electronic human resource management is emerging; it is knocking on the doors of human resource departments and even entering without asking. The implementation and application of electronic human resource management is boosted the last decades by the rapid development of the Internet (Strohmeier, 2007). It is a movement that has

grown the last years within the field of Human resource Management as information technology (IT) has become more important in daily human resource practices of organizations (like recruiting and selection). Many studies have revealed that the introduction of e-human resource has influence on employees in organizations and their work processes (Lengnick-Hall and Moritz, 2003).

#### **Electronic Human Resource Management: Conceptual and Theoretical Explanations**

To understand electronic human resource management, one must know what it actually means. Electronic human resources management is a relatively new term in organizations. Therefore it can be easily misinterpreted. Several definitions of e-human resource management exist in the academic literatures. The term e-human resource or e-human resource management was first used by Olivass-Lujan, Ramirez, Zapata-Cantu (2007) in the late 1990s when "ecommerce" was sweeping the business world. In the literature, e-human resource is used interchangeably with virtual human resource management, human resource intranet, web-based human resource, computer-based human resource management systems, and human resource portals (Ruel et al., 2004).

The term e-human resource management is extensively used but a universally accepted definition is still unclear. It is often used synonymously with similar terms such as web-based human resources, human resource information systems (HRIS), virtual human resource management, human resource intranet, computer-based human resource management systems, and human resource portals (Ruël et al., 2004). According to Voermans and van Veldhoven (2007), e-human resource management could be narrowly defined as the administrative support of the human resource function in organizations by using Internet technology. Lengnick-Hall and Moritz (2003) refers to e-human resource to conducting business transactions (and in particular human resource management) using the Internet along with other technologies. Ruel et al. (2004, 2007) defined e-human resource management as a way of implementing human resource strategies, policies, and practices in organizations through a conscious and directed support and/or with the full use of web-technology-based channels.

Ruel, Bondarouk and Looise (2004) and Strohmeier (2009) gave the most cited definitions of electronic human resource. Ruel, Bondarouk and Looise (2004) proposed an early popular definition in which e-

human resource management was defined as a way of implementing human resource management strategies, policies and practices in organizations through the conscious and directed support of and with the full use of web technology based channels. Strohmeier (2007) expanded this definition to be more specific about the technological and organizational contexts, defining e-human resource management as the application of information technology for both networking and supporting at least two individual or collective actors in their shared performing of human resource activities. In the remainder of the paper, we use a hybrid of these definitions in which e-human resource management consists of intended and actual human resource management policies, activities, services, and collaborations with individuals and organizations, which are delivered and enabled using configurations of computer hardware, software, and electronic networking capability.

Bondarouk and Ruël (2009) explain further that:

*e-human resource management is an umbrella term covering all possible integration mechanisms and contents between human resource management and information technologies aiming at creating value within and across organizations for targeted employees and management*

Bondarouk and Ruël (2004) loosely define e-human resource management as a way of implementing human resource management strategies, policies and practices in organisations through a conscious and directed support of, and/or with the full use of, web-technology based channels. The same authors expand this definition in later work to include the communication component of e-human resource management, where employee and employers, through e-human resource management, are able to communicate about human resource content more effectively (Bondarouk & Ruël, 2006). All employees are participants in processes due to the technological networks electronic human resource management creates, thus allowing human resource professionals to direct their energies into promoting desired employee behaviour.

Electronic human resource management can be define as a collection of knowledge,

principles and best-practice approaches to effective human resource management (Walker, 2001). Voermans and Van-Veldhoven (2007) view electronic human resource management as the administrative support of the human resource function in organisations by using Internet technology, but also emphasise the importance of understanding that the introduction of electronic human resource management may lead to change in content and positioning of the human resource function. The application of web-based technologies to the human resource function combines two elements, namely the use of electronic media and the active participation of people in the process. People are the drivers behind the technology. They make use of the technology that helps organisations lower administration costs, improves employee communication and satisfaction, provides real time access to information, while at the same time reducing processing time and costs (Hawking, Stein & Foster, 2004).

E-human resource provides the human resource function with the opportunity to create new avenues for contributing to organizational effectiveness through such means as knowledge management and the creation of intellectual and social capital (Lengnick-Hall and Moritz, 2003). However, the human resource function has lagged behind other internal functions in its adoption of information system (IS) information technology (IT) innovations (Alleyne et al., 2007).

This study is based on the socio-technical systems (STS) theory. This theory was selected as it views organisations as open systems, operating within an environment where technology affects the social aspects of work, and in turn these social aspects will affect the way the technology is implemented and maintained. It will also affect the attitudes towards the technology. This theory relates to the way in which electronic human resource management (the technology) affects the work of line managers and human resource professionals (the social aspects).

The socio-technical systems theory is one of the most widely used and accepted paradigms in social science (Heller, 1997). It is also

underpinned by an extensive body of theoretical and experiential work regarding work design (Appelbaum, 1997). The historical beginning of this theory dates back to the early 1950s. Its origins are from extensive work done in British coalfields. The beginnings of the socio-technical systems theory according to Trist (1981) can be traced to the various field projects initiated by the Tavistock Institute in the coal mining industry in Britain. In the post-war reconstruction in 1949, the Tavistock Institute was tasked with two major projects. The first related to the investigation of group relations at all levels within an engineering company. The second project looked at innovative work practices and organisational arrangements that could potentially lead to increased productivity without major capital expenditure. The organisation in which this was applied was seen as a social system. The second project included the technical and the social systems, as well as the relationships between the two. This resulted in a new field of enquiry – the socio-technical systems approach (Trist, 1981).

This approach was formulated by Trist and Emery and other researchers at the Tavistock Institute of Human Relations. It was discovered that maximum results could not be achieved from new technological designs alone. The human component, although separate, interacts with technological components (Mitchell and Nault, 2003; Heller, 1997). From this, the concept of joint optimisation of social and technological subsystems was discovered, namely that work is designed in such a way that the two separate parts (the social/human and the technological) together create a transformed organisational structure and work redesign. The theory also looks at boundary management involving the interaction of the organisation and its environments. Resources and knowledge are exchanged through the organisational boundary while the boundary protects it from external disorder (Appelbaum, 1997).

The socio-technical system design is built on the principle that an organisation comprising a business unit, team or other work unit, which is made up of both social and technical parts



that are open to their environment (Appelbaum, 1997). Socio-technical systems theory examines the influence of technologies on organisations and the effects of organisational process, culture and activity on technology (Bostrom & Heinen, 1977). According to this theory, organisations are made up of people who use tools, processes and knowledge to produce goods and services of value to their customers. The people component refers to the social system, the technical system refers to tools, methodologies and knowledge and the customers signify the organisation's external environment. The theory demonstrates the collaborative two-way relationship between people and technology, and looks at the design of these two systems in relation to one another and in relation to the demands of the external environment. The relationship, to a large degree, determines how effective the organisation will be.

The main characteristics of the socio-technical systems approach is that work should be seen as interdependent parts that form a system; operating in the external environment by adapting to it and pursuing goals within it; having its own internal environments made up of individual but interdependent technical and social sub-systems; open socio-technical systems where goals can be attained through various means, meaning that variations of technology can be chosen for work organisation (this is known as equi-finality); and joint optimisation of technical and social subsystems within an open socio-technical system to increase performance (Badham, Clegg and Wall, 2000).

According to Appelbaum (1997), there has been a reappearance of STS theory due to technological advances and implementation in organisations in all industries. Electronic human resource management is one such advancement that will be investigated here from the socio-technical systems theory perspective.

#### **The Application of Information Technology to Human Resource Functions: Historical Excursion**

When looking at the current usage and effects of electronic human resource management tools and technology, it is fundamental to

understand the history behind the development of such technologies. To this end, the development of the human resource information technology will be discussed.

Business today has been transformed by information technology and technology has become one of the driving forces of new policy, process and procedures for dealing with stakeholders within the organisation. One area where this has had a profound impact is in the human resource management function. Computer usage in human resource management dates back to the 1940s and can be sourced to the storing and capturing of employee information through the use of skills inventories and payroll systems (Walker, 1980). Developments were hindered by distinctive issues relating to the human nature of many of the human resource functions, such as job placement, counselling and other nontechnical tasks. In addition, computer technology, generally, had not been tailored for human resource requirements at that time (Walker, 1980).

Walker (1980) describes four stages in the revolution of computers for personnel use. The stages include "the primitives forerunners of the 1940s and early 1950s, systems based on the number crunchers available in the mid-1950s and early 60s, overly ambitious efforts to include data from personnel in master plan management information systems in the 1960s, and external developments, primarily in government reporting requirements, that made personnel data systems a necessity rather than a luxury in the 70s". As mentioned above, the 1940s and 1950s marked the beginning of the human resource technological revolution in the United States with the automation of skills inventory systems and payroll systems (Walker, 1993). Typically, these first systems were Electronic Accounting Machinery (EAM), which consisted of 80-column card systems that kept information such as employees' last name, initials, salary rate, work location, date of birth, gender and department code (Walker, 1980). Human resource management was recognised as being an early contender for office automation in payroll, benefits administration and

transaction processing applications (Ball, 2001). Changes within the human resource function were instituted as a result of unionisation, increased mobility of workers and demands for innovative and more effective ways of tracking employees. To sum up, the work load of human resource departments increased to the point where computerised personnel systems had become a must (Walker, 1972).

The late 1950s and early 1960s signified a time of massive growth and advances in technology (Walker, 1980). The majority of these developments took place in the areas of optical scanning equipment used for scoring tests in the field of education and the military, as well as for large-scale job analyses (Chuman resourceistal, cited in Cronin, Morath, Curtin & Heil, 2006). Government's involvement in personnel issues triggered more thorough monitoring of organisations' workforces in order to comply with record-keeping requirements. This resulted in the "tacking on" of data elements to existing automated payroll systems. The 1960s were also characterised by organisations becoming more complex, which resulted in greater administrative demands on personnel departments. Such development brought about opportunity and the formation of the company, Information Science Incorporated (InSci), who were responsible for the creation of the first packaged personnel system called PICS (Personnel Information Communication System) which was used for job matching. The development of this packaged system initiated requests for customised human resource packages to meet organisations' specific needs and resulted in the development of the personnel system called human resources II (Walker, 1993). At this time, people with technical computer skills, such as programmers, were scarce and only company giants such as General Motors, AT & T, Mobil, General Electric, Ford and a few others were able to afford such resources. From the start, these companies saw the benefits of using computers in human resource management, in that they could capture basic information about many employees as well as automatically generate

and print reports that previously required much manpower to produce (Walker, 1980). Also, the storage costs, capacity and usefulness of the data were fundamentally limited, and to get valuable statistics, it was necessary to develop independent fixed report systems.

There was a high demand for new ways to coordinate and assemble growing amounts of data. This led to increasing interest in management information systems (MIS) as a way to record data once and makes it available to those who needed it (Walker, 1980). According to Gallagher (1986), from the 1970s, a greater significance was placed on the need for a computer-based system which could facilitate efficient and effective management of personnel. In comparison to other departments, human resource departments generally tended to be slow to recognise the value of such computerised personnel management systems. The need for human resource computer technology came about due to four main influences during this period.

Firstly, in the 1970s, many organisations were growing, resulting in increased employment and improvements in pay and working conditions. This changed considerably when the stress was placed on increased productivity from employees, more contract work and decreasing the work-force. This change highlighted the need for additional, better information about the organisation's workforce (Gallagher, 1986). The second influence came from governmental demands related to labour legislation which called for increased statistical requirements (Gallagher, 1986). Thirdly, advances in computer technology, in terms of greater processing power and capacity, enhanced the possibility for applying this technology to human resource management (Gallagher, 1986). Fourthly, computer hardware has been the forerunner in terms of advances in technology; there was therefore a need for increased computer software for human resource management systems. Walker (1980) includes equal pay, equal employment laws, executive orders and their consequential demand for more information, as drivers for the need for and the subsequent

development of some form of automated personnel data system. In the 70s, lower computer processing and storage costs made personnel data systems more accessible.

According to Hendricksen (2003), from 1960 to 1980, the integration of human resource into core business and the need for governmental and regulatory requirements increased significantly. The arrival of mainframe computers in corporate America provided a technological solution to the increasing need for analytical and record-keeping requirements mandatory for accurate reporting as stipulated by various regulations. The human resource department became one of the principal users of this technology. These systems grew in size and capacity but continued to operate as mainly recordkeeping systems (Kavanaugh et al., cited in Hendrickson, 2003). Over the last two decades, the reliance on the human resource function to present solutions to boost efficiency and effectiveness of human capital, has been significant (Hendrickson, 2003).

The concept of electronic human resource management was precipitated by a number of significant changes within the business and social environments. First, the hardware, in the form of personal computers, was required to conduct human resource transactions online. Personal computers formed the basis upon which electronic human resource management could be developed. Second, the users of the technology – employees and managers – would need to be computer literate to reap any benefit from electronic human resource management tools. Third, the Internet presented the linking channel of personal computers and computer-literate employees and managers in real-time.

Connecting people and data removed many of the physical barriers that previously hindered interactions. Fourth, through enterprise resource planning software, it was possible to connect different business operations. Apparently dissimilar databases could now be constructed into a single whole, allowing for up-to-date transaction processing and decision-making. Fifth, human resource professionals along with information technology specialists, re-engineered human

resource processes to make them cheaper, better and faster (Aghazadeh, 2003).

Today, electronic human resource management tools have enabled the human resource function to boost efficiency and effectiveness of human capital, regardless of whether the organisation is large or small. With regulatory and competitive pressure steadily increasing, the need to manage human capital effectively has increased. Electronic Human Resource Management tools allow for the management of a rich variety of information about an organisation's workforce and also provide analytical tools to assist in decision making about the management of those assets (Hendrickson, 2003). A major challenge faced by many organisations is integrating electronic human resource management tools and Human Resource Information System with enterprise-wide software such as an Enterprise Resource Planning (ERP) system. ERP systems link and integrate data and information from financial, operations, sales, human resources, supply-chain and other business functions to create a single, collective picture of the entire business and its processes. This type of shared database allows access to common data, reducing the need to continually integrate information from separate databases and software applications.

#### **Electronic Human Resource Management Applications and Its Benefits on Organisational Growth**

With the wide-spread use of information technology, the IT application of internet is becoming a more and more important issue in human resource management research. Santos and Kuzmits (1997) suggested that human resource professionals should not ignore the advantages of applying internet, which can reduce communication costs, improves internal and external communication and information management. The application of intranets also can provide support for human resource management transactions, such as information retrieval, database access, etc, which is also a very convenient and efficient way for companies to offer timely information to their employees. Many studies

have described a variety of usefulness of internet and information technology to human resource management activities, and some of them currently have been taken into human resource management practices (Lai, 2001).

Internet and information technology have an important impact on managing performance appraisal (Hansen and Deimler, 2001). Generally speaking, individual employees have their performance evaluated every several months. Web-related electronic evaluation can make use of information system to record employees' work performance and learning. The supervisors can see the regularly submitted work reports from subordinates at any time, and then conduct relevant guidance and supervision, staff presentation. Employee progress report can also be completed through the network. At the same time, through these real-time data corporate managers can continually discover and improve existed management problems in the course of business. The subjective factors in performance appraisal are greatly reduced and the appraisal results tend to be more objective.

Santo and Kuzmits (1997) mentioned that the intranets and internet effectively enhance the internal and external communication of an organization. Through an organization's network resource, information's fast, direct and extensive communication and integration will be achieved. There are many channels of internal communication based on web-based technology, for example, in-house staff personal web page, forum, chat rooms, bulletin board, and management email.

In the views of Armstrong (2003), e-human resource provides the information required to manage human resource processes. These may be core employee database and payroll systems but can be extended to include such systems as recruitment, e-learning, performance management and reward. The system may be web-based, enabling access to remote or online and at any time. The information provided by the e-human resource process can be communicated across organisations. Kettley and Reiley (2003) states that a computerized human resource information system consists of "a

fully integrated, organisation wide-network of human resource-related data, information, services, databases, tools and transactions. Technology has only recently developed in a way that enables e-human resource to make its mark, especially the introduction of corporate intranets and web-enabled human resource information system. The nature of the development path, however, varies considerably from organisation to organisation.

Walker (1993) pointed out information technology is necessary for human resource managers to accomplish business-related objectives, which is regarded as assisting human resource managers to supervise the employees, decrease labour costs, effectively make use of employees' knowledge, skills, and easily produce reports.

As a matter of fact, electronic human resource management is economical and enables the employees and managers to serve themselves at any time in everywhere, which can liberate human resource staff from many human resource transactions. Roberts (1999) revealed, through the self-service portal, that employees can update their data and records by themselves; they can check the balance of their salary accounts, choose employee benefits and transfer funds, set personal performance plans and so forth. In addition, Caterinicchia (2005) pointed out that web portal can improve the communication between employees and their company since it is a two-way channel. Moreover, web portal also offers the latest information of the organization to its employees. At present, it is seen that the web-based application of employee self-service has been adopted by many business organization.

Electronic Human Resource Management has shown importance and significance along the entire human resource value chain. Walker (2001) includes the following key areas of electronic human resource management: employee and manager self service; employee benefits administration; recruiting and staffing; performance management; compensation planning; employee development; and knowledge management. Panayotopoulou, Vakola and Galanaki (2007) also look at the ways in which



electronic human resource management is used for human resource purposes. They separate human resource practices into the six key areas, namely human resource planning, acquiring human resources (including assessment), evaluating human resources, communication, rewarding human resources and developing human resources. This may be extended to include employee commitment (Wright & Dyer, 2000).

Electronic Human Resource Management is also used as a means to communicate. It utilises the medium of e-mail (electronic mail) for communication purposes. Intranet and e-forums have also been highlighted recently as a fast, effective and easy way of transmitting information to employees (Panayotopoulou et al., 2007). In addition to this, Internet blogs hosted by an organisation are also being used to support communication. Technology has played an important role in the collection and analysis of work-related information. For this type of work, computer programs are used to cluster jobs based on similar profiles and task inventories (Cronin et al., 2006). IT is used for automated content analysis to score open-ended responses to surveys and test questions by determining the frequency patterns of phrases and words. More recently, latent semantic analysis has taken content analysis a step further by improving the quality of the process (Cronin et al., 2006).

Electronic Human Resource Management can also be used in performance appraisal where the whole process can be automated and computerised, allowing for the performance appraisal to be conducted online through a company's intranet. An online performance appraisal system encourages standardised process and procedure where the specific criteria and measurements of given positions and roles are available. An online performance appraisal system means that much of the work involved in the appraisal can be done remotely by the employee and the manager. All information can be submitted directly to the human resource department in electronic form. This has proven to save both time and cost. The self-service application allows employees to manage their own personal performance

goals based on performance appraisal results (Adamson & Zampetti, 2001).

Compensation and rewards can be managed more effectively and with considerably less effort when using electronic human resource management (Wright & Dyer, 2000). According to Ensher et al. (2002), the management of benefits has seen radical changes due to technology. Electronic Human Resource Management can be used to implement and communicate salary policies, but, more importantly, it can be used to tailor rewards and compensation to individual employees' needs. Cafeteria style compensation and rewards schemes managed through electronic human resource management tools are now a reality. Employees can make their own decisions about how to select from a variety of benefits or rewards to suit their individual needs. Similarly, with compensation, employees can tailor their own compensation packages. Where one individual values more time off, a four-day work-week with a lower salary may be suitable, while another may opt to have a hospital plan instead of full medical aid coverage (Wright & Dyer, 2000).

Electronic Human Resource Management has allowed for employee self-service as well as manager self-service. Employees are able to electronically select preferred benefits and rewards, thereby reducing the amount of human resource administration required to implement these choices. Managers are able to make decisions about salary changes and increases, bonuses and rewarding of other benefits (Panayotopoulou et al., 2007). The war for talent, which is becoming increasingly competitive and critical, has made it necessary to use all the retention tools at hand. An obvious tool is an organisation's compensation and reward system. Technology is the key facilitator of this, allowing for a "bigger bang with individual employees with the same buck" (Wright & Dyer, 2000). Dietch (2001) writes about the connections between business and benefits through what she terms the "benefits website", a website where up-to-date benefit information is hosted. Through the website, employees can be taught how to make decisions about life insurance, health,

disability and other benefits, and so become more independent with regards to their benefits.

Electronic Human Resource Management is widely used in the training and development of employees. This is seen as one of the most beneficial uses of technology in human resource. Technology has also played an important role in the area of training. Initially, this type of technology was used for flight simulations, which have now evolved into sophisticated training simulators and systems with greater physical and psychological integrity than was thought possible (Cronin et al., 2006).

This is certainly not a new concept and there are arguments regarding its effectiveness. Many organisations have seen online training as being beneficial in certain areas. Wright and Dyer (2000) have looked into the use of Internet-based training in attraction and retention. The following example elucidated by Wright and Dyer (2000) demonstrates how Internet-based training might facilitate attraction and retention:

*Widget.com, a fast growing, fast-paced e-business has in its employ a manager, Mr Brown. Mr. Brown arrives at work Monday morning and when he logs onto his e-mail, he finds a high-priority message with either an attachment or a link to a website. This is his Monday morning challenge from the CEO, and the system will track whether or not he links up and completes the challenge. When he goes to the link, he sees a digital video of his CEO telling him how people are Widget.com's competitive advantage, and that when they do not feel valued, they leave. Thus, his challenge to Mr. Brown is to make his employees feel valued today. To do so, he will in the next 10 minutes learn how to express appreciation to an employee. He then receives 6 learning points, he observes a digitised video model performing these learning points, he reviews the learning points again, and takes a learning point quiz. The manager then sees the CEO giving him the final challenge, that in the next 15 minutes he is to take one of his employees aside and*

*express his appreciation to them using the skill he has just been acquired.*

Ensher et al. (2002) identified many benefits associated with using electronic human resource management for training and development purposes, namely cost reduction by eliminating the costs associated with travel, time away from work, training material and refresher courses. Another identified advantage is that e-Learning may promote better, more effective learning, as there are no time limitations and training effectiveness can be tracked more effectively. The final advantage is that training can be delivered anywhere at any time. In summary, training and development is one area where electronic human resource management can add a great deal of value. By automating training and development processes and material, the efficiency and effectiveness of training are increased.

Electronic human resource management is a tool that can be used to assist in assessing employee commitment. Through such an assessment, directed action can be taken, based on survey outcomes. Attitude surveys play an important role in ensuring employee commitment, in the sense that employee commitment needs to be monitored on an ongoing basis to identify possible obstacles and deal with them quickly. Traditionally, it could take up to 18 months for employees to see responses to their concerns. The full survey process of development, administration, analysis, interpretation, decision making and finally, implementation of interventions is a very lengthy process. Technology can be used to shorten this cycle. Real-time attitude surveys can be conducted online and as soon as the employee has completed the survey, the data is entered and analysed. What used to take many months previously, now takes a few hours. This means that a manager could receive almost instantaneous feedback regarding the attitudes of his team, and could take some form of corrective action in real time. It must be noted that it is not the technology that will solve the highlighted human resource issues; the technology is rather the catalyst for

transforming the way that human resources are managed (Wright & Dyer, 2000).

From the above it is seen that IT-based electronic human resource management can be effectively used in various human resource functions, whatever it is recruitment, performance appraisal, or human resource planning, etc. Electronic Human Resource Management can also improve corporate human resource efficiency and enhance internal and external communication of an organization. Therefore, it is very necessary and significant for companies to adopt electronic human resource management to obtain more competitive advantages in today's fierce competition environment. The next part will elaborate the theoretical background and possible determinant factors of electronic human resource management adoption.

#### **Electronic Human Resource Management in the Context of Organisational Stability and Growth**

Human resource management has had to change as the business environment has changed, that is, human resource management has had to act both proactively and reactively in response to the changing business environment. For this reason, it is of the utmost importance that human resource management systems are flexible and adaptable, and that human resource professionals acquire new knowledge to cope with the unpredictable nature of business. As such, human resource professionals need to integrate their knowledge of core human resource functions with the economic and business environment within which they work, and also keep abreast of technological developments. By doing this, human resource professionals will be able to have a strategic impact on their organisations (Aghazadeh, 2003).

Different scholars have discussed the goals that are fundamental to the use of IT in human resource management. In general it can be seen as a result of the pressure on the human resource management department as organizations try to achieve a competitive advantage (Lepak, and Snell, 1998). Lepak and Snell (1998) who looked at it in more detail, refer to the four pressures of

electronic human resource management. Three main pressures for electronic human resource management are returning in the literature which corresponds with three types of goals mentioned by Ruël, Bondarouk and Looise (2004). The first goal is focused on improving the strategic orientation of human resource management. The role of human resource management is pushed towards a role of a strategic partner that can add value to the organization (Lawler III, & Morhman, 2003). The second goal can be defined as means to achieve cost reduction and efficiency gains. The time consumed by a process can be reduced and paperwork can be avoided by the use of technology (Lengnick-Hall, and Moritz, 2003). The third goal is to improve client service and facilitate management and employees. To provide service to managers and employees is still seen as the predominant role of the human resource function (Lepak, and Snell, 1998). Ruël, Bondarouk and Looise (2004) add a fourth goal to incorporate the globalization of organizations. Electronic Human Resource Management can be used to globalize the organization with the associated human resource policies and practices.

It creates the opportunity for the human resource function to partake in the intellectual capital, social capital and the flow of knowledge. In the end the whole movement is for the human resource function an opportunity to improve service delivery. An organization is influenced by several factors, like accessibility and number of human resource professionals and IT specialists. Which type of electronic human resource management to implement in the organization depends on these factors. When implementing one of these forms it is important to convince decision makers that benefits are greater than costs. Reasons are electronic human resource management is time-consuming and expensive for most organizations (Lengnick-Hall and Moritz, 2003).

Employees in an organization use IT as a tool to perform their tasks (Bouwman, Den Hooff, van den., Wijngaert, van de., en Dijk, van., 2005). The way technology is implemented, used and accepted depends on several

factors. In order to describe the use and acceptance of information technology in an organization different stakeholders and the interaction between these stakeholders are important. The interactions between the stakeholders of electronic human resource management determine the position of the stakeholders. Thus it is important to research the stakeholders and their relationship to get a complete representation of the movement electronic human resource management.

### Conclusion

Electronic human resource management is not intended to replace traditional human resource departments. Instead, it is considered to be more of a supplement to the human resource department, performing tasks which might be otherwise bog down human resource management and prevent them from doing more strategic work. By installing electronic human resource management software, a business can streamline the more detailed tasks associated with the human resource department.

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